

a.

2013 Lake St. John Aquatic Vegetation Control Plan

LDWF, Inland Fisheries

Concordia Parish - Map in Appendix I

1. Waterbody type – natural oxbow of the Mississippi River. No current hydrologic connection with the Mississippi River.
2. Age and condition of control structure
 - Type of control structure - Spillway
 - Gate size – 4' diameter pipe
 - Number of gates – 2 pipes, each with a 4' diameter and 47.9 ft. MSL invert elevations; stop logs raise elevation to 54.3 ft. MSL
 - Condition – Good
 - Sluiceway - 32' wide concrete weir with fixed elevation of 54.3 ft MSL
3. Water level range (MSL)- 54.3
4. Surface area at pool stage - 2118
5. Average depth – 10 feet
6. Watershed ratio – 5:1
7. Drawdown potential of structure – maximum of 6 feet
8. Waterbody Board or Lake Commission - Lake St. John Recreation and Water Conservation District – established under Louisiana Legislative Act 214 of 2005.
See attached < <http://www.legis.state.la.us/billdata/streamdocument.asp?did=318785> >.
Primary contact information- Tom Bell
Lake St. John Grocery
Phone - 318-757-0013

Procedure for spillway openings – under the supervision of the LDWF, the above mentioned Commission is responsible for opening and closing the structure.

The Lake St. John Advisory committee conducted controlled water fluctuations (draw downs of about 4' below pool stage from September - December) annually from 1983 until 1998. Several years of drought in the late 1990's led to the decision to discontinue this practice. The last drawdown was in 1998 when the lake was lowered 4' below pool stage from September 1st until December 31st. Details of the effects of these drawdowns are not available.

What significant stakeholders use the lake?

Property owners around the lake (homes and camps)

Recreational fishing

Water sports (boating, jet skiing, tubing, swimming, etc.)

Agricultural irrigation

What are their needs and concerns? What is the history of aquatic vegetation complaints?

Complaints are minimal. Water hyacinth and common salvinia require maintenance spraying. Occasional problems from native submergent vegetation are isolated.

Have there been any controversial issues on the lake?

In the past, some issues occurred periodically concerning the designated pool stage and annual

drawdowns which caused some friction between user groups.
LDWF is not aware of any current issues.

Aquatic Vegetation Status:

As of August 2, 2011 no problem vegetation existed.

Less than 100 acres of aquatic vegetation occurs at that time. There was a fringe of cutgrass along the shoreline that provides protection against erosion. The north end of the lake had approximately 40 acres of water hyacinth that requires periodic maintenance spraying. Following years with mild winters, common salvinia can become problematic in the Harmon Cove area.

The winters of 2011 and 2012 have been warmer than normal. Water hyacinth and common salvinia populations are expected to expand as the weather gets warmer. Estimated total coverage for water hyacinth and common salvinia in 2013 is between 50 and 200 acres.

Limitations:

Note factors that may limit the effectiveness of chemical, mechanical, or biological control methods for the aquatic plant problems found in the waterbody.

Small watershed size make refill after drawdowns a concern
Agricultural irrigation may restrict the use of certain herbicides

Note regulatory or public factors or anything else that may limit the ability of LDWF to control aquatic plant problems in the water body.

2-4, D waiver area
Agriculture irrigation

Past Control Measures -

Historically, aquatic vegetation has never been a serious issue in Lake St. John. Annual drawdowns of 4 feet occurred during the fall/winter months from 1983 thru 1998. Since that time a small amount of foliar contact spraying has occurred as needed on emergent vegetation. Spray records including year, type of vegetation, and number of acres sprayed can be found in the chart below.

Year	Acres	Vegetation
2005	23	Water hyacinth
2006	16	Common salvinia
2007	6	Alligator weed
2007	1	Water hyacinth
2007	5	Common salvinia
2008	5	Alligator weed
2008	2	Pennywort
2008	35	Water hyacinth
2008	7	Common salvinia
2009	11	Alligator weed
2009	5	Common salvinia
2009	1	Giant salvinia ???
2009	27	Water hyacinth
2010	29	Alligator weed
2010	13	Duckweed
2010	20	Pennywort
2010	29	Common salvinia
2010	75	Water hyacinth
2011	38	Alligator weed
2011	7	Pennywort
2011	5	Water hyacinth
2012	4	Pennywort
2012	1	Water hyacinth

Herbicides utilized and application rates listed below:

Glyphosate (Aquamaster, Aquastar, etc.): Used at a rate of 0.75 gallons per acre to treat alligator weed, water hyacinth, and giant and common salvinia during the active growing period.

Diquat (Reward, Knockout): Used at a rate of 0.75 gallons per acre to treat alligator weed, pennywort, duckweed, water hyacinth, and giant and common salvinia during the slower growing period or winter months.

Surfactant is added at a rate of 1:4 (surfactant: herbicide) for all herbicides.

Recommendations

Aquatic technicians will report significant changes in the status of aquatic vegetation monthly following days spraying on the reservoir. LDWF spray crews will spray emergent vegetation as needed with either glyphosate or diquat and an approved surfactant. These herbicides are applied at the rate of 0.75 gallons per acre with the surfactant applied at 0.25 gallons per acre. A diquat/glyphosate mix may be applied to any salvinia infestations, if or when detected, at a rate of 0.75 gal/acre glyphosate, 0.25 gal/acre diquat, 0.25 gal/acre Aqua King Max, and 8 oz. Thoroughbred.

Aquatic vegetation surveys will be conducted annually in July or August to determine the species composition and the acreage of aquatic vegetation.

Typemap

2005 Lake St. John Aquatic Vegetation Type Map

Dave Hickman
September 2005

Lake St. John was about 2 feet below pool stage at the time of the survey in late summer of 2005. The area known as Harmon's Lake on the north end of the lake, which was 3 feet deep or less, was covered in a mixture of coontail, southern naiad and bladderwort. There was also alligator weed and water primrose near the shore. Two areas on the south end of the lake near St. Mary's Church were partially covered in southern naiad from the shore to a depth of about 4 feet.



Red highlights = 15 ac, 100% coverage: 1/3 coontail; 1/3 southern naiad; 1/3 bladderwort

Black highlights = 3 ac + 8 ac, 50% coverage: southern naiad

Appendix I. Map of Lake St. John



Appendix II Resume Digest of HB 313

Hammett (HB 313) Act No. 214

New law creates the Lake St. John Recreation and Water Conservation District comprised of the area of Lake St. John and all of the land between La. Highways 568 and 569 and Lake St. John, located within Concordia Parish. Provides that the purpose of the district is the preservation, promotion, and development of the wealth and natural resources of the district by the conservation of soil and water for agricultural, recreational, commercial, and sanitary purposes and by the regulation of aquatic plant growth.

New law provides that the district shall have the authority to acquire property and to and lease, build, operate, and maintain any works or machinery designed to accomplish district purposes. Grants the authority control over the supply of fresh water and authority to sell such water for irrigation, municipal, and industrial uses both within and outside its jurisdiction; however the district has no control over use of water by any entity which was using water prior to creation of the district. Authorizes the commission to cooperate and contract with public entities for the construction, operation, and maintenance of its facilities.

New law provides that the district shall be governed by a board of five commissioners, each of whom shall be a qualified elector of the district and a resident of Concordia Parish.

Provides for appointment of commissioners by the parish legislative delegation.

Nominations for the initial appointments come from the Lake St. John Flotilla Committee and the Lake St. John Advisory Board via the police jury. Nominations for subsequent appointments come from the board itself. Provides that commissioners serve staggered four year terms without compensation. Commissioners are limited to serve no more than two complete or partial terms.

New law provides that a commissioner may not serve more than two consecutive complete or partial terms. Provides that the president of the board shall fill any vacancy for an unexpired term subject to approval by the board. Requires removal of any commissioner who has three consecutive unexcused absences or has failed to perform his duties. Requires approval of the removal by a majority of the board and final removal by the appointing authority.

New law provides that the board of commissioners may:

- (1) Purchase, hold, sell, and convey immovable and movable property.
- (2) Acquire servitudes and rights-of-use by purchase, lease, or assignment.
- (3) Assist in conserving soil and water and in developing water resources provided the board does not interfere with the authority of any other political subdivision.
- (4) Cooperate with DOTD and other state agencies in the maintenance or improvement and the construction of any works or improvements.
- (5) Manage the water level in the lake and make recommendations to the Wildlife and Fisheries Commission regarding lake drawdowns for biological purposes and aquatic plant control.
- (6) Employ personnel, including engineers and attorneys and personnel to enforce regulations promulgated by the commission. Provides that the district is not subject to constitutional provisions relating to the state civil service system.
- (7) Levy taxes and incur debt.
- (8) Cooperate and contract with others for the sale or use of waters.
- (9) Grant franchises to utility companies when construction of facilities is within the district.
- (10) Do all things necessary to fulfill authority purposes.

New law authorizes the district to request information and assistance from DOTD, with respect to the improvements and maintenance of the district.

With respect to debt and taxes: authorizes the commission to incur debt for any lawful purposes and to issue certificates of indebtedness and, subject to voter approval, to issue bonds payable from an ad valorem tax. Provides that the principal amount of all such outstanding bonds shall not exceed 10% of the assessed valuation of the taxable property within the boundaries of the district. Provides that the commission shall have additional authority to levy taxes for improving, operating, and maintaining its facilities, subject to voter approval. Further authorizes the levy and collection of a parcel fee, subject to voter approval. Proceeds from the parcel fee are to be used for costs of district operation, including management and control of water levels and aquatic plant growth, protection and preservation of the works, improvements, and properties owned or controlled by the district, providing for the use of such properties, and preserving order. Authorizes issuance of bonds secured by the parcel fee.

New law authorizes the board to make and enforce rules and regulations to:

- (1) Protect and preserve the works, improvements, and properties controlled by the commission.
- (2) Prescribe the manner of construction in the district.
- (3) Prescribe the manner in which natural or artificial watercourses may be connected to the works of the commission or used for sewer outlets.
- (4) Prescribe the permissible uses of the water supply.
- (5) Prohibit or regulate the discharge into sewers of the commission of any liquid or solid waste deemed detrimental to the works and improvements to the commission.
- (6) Regulate activities on the lake that are not regulated by the La. Wildlife and Fisheries Commission. Provides that the board shall make recommendations to the La. Wildlife and Fisheries Commission for regulations pertaining to hunting, fishing, trapping, water sports, and boating.

New law prohibits all of the following and provides for penalties for violations as indicated:

- (1) Erect any dam or reservoir upon any watercourse which will affect the lake without the approval of the board of commissioners; \$500-1,000 fine or up to 60 days imprisonment, or both.
- (2) Empty any noxious substance into any watercourse within the district; \$100-1,000 fine or up to three months imprisonment, or both.

Penalties for the following are a fine of \$500-1,000 or up to 60 days imprisonment, or both.

- (3) Obstruct drainage channels, except in accordance with plans, specifications, and instructions prescribed by the board.
- (4) Construct dams, locks, or gates without permission of the board.
- (5) Float timber in the watershed.
- (6) Close or place any obstruction which will interfere with the effective, thorough, and continuous drainage into the lake by any person whose land abuts the lake or abuts any public road parallel to the waterline or that is contiguous to the lake; \$500-1,000 fine or imprisonment for not more than 60 days, or both.

New law requires all construction and letting contracts for construction to be subject to and exercised under the supervisory control of DOTD. Requires DOTD to provide engineering services and to cooperate in construction. Provides that if the district or DOTD acquires land, the owner may retain the mineral rights to such property. Provides that property acquired by the district or DOTD for purposes of the district is exempt from taxation. Provides that new law does not abridge the right of any person, firm, or corporation from whom a servitude or right-of-use has been acquired to lease the land for production of minerals.

New law authorizes the district to create and construct recreational facilities and other facilities to accommodate the public and to provide for adequate lake access. Requires that

the board provide public access boat ramps.

New law authorizes the board to establish and enforce rules and regulations pertaining to commercial establishments constructed in the district and to license and permit such establishments and to levy and collect a fee for the privilege of making commercial use of the facilities of the lake. Provides that the rules and regulations shall provide penalties for any commercial establishment operating without a permit or license.

Effective upon signature of governor (June 29, 2005).

(Adds R.S. 38:3087.281-3087.297)

Type map 2012

Vegetation type mapping conducted on July 30, 2012. The lake had less than 5 percent coverage of submergent and emergent vegetation. There is a sporadic fringe of giant cutgrass along most of the shoreline, likely beneficial for erosion control.

